

REMARKS

Claims 1, 4-10 and 12 are pending in the present application. Claims 4-6 are withdrawn from consideration. Claims 1, 7-10, 12 stand rejected. Claims 4-6 are cancelled herein without prejudice or disclaimer. No new matter is added.

35 U.S.C. § 112, first paragraph

The Examiner has withdrawn the rejection of claim under 35 U.S.C. § 112, first paragraph. The Applicants thank the Examiner for the withdrawal of this rejection.

35 U.S.C. § 103(a)

Claims 1, 7-10 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Adair, *et al.* (EP 0388 151 A1) in view of Mather, *et al.* (U.S. Pat. No. 5,122,469), Zettlmeissl, *et al.* (Biotechnology 5:720-725(1987)), Handa-Corrigan, *et al.* (Enzyme Microb. Technol. 11:230-235 (1989)) and Schneider (J. Immunol. Methods 116:65-77 (1989)), Murakami, *et al.* (U.S. Patent No. 5,019,499), Wolfe, *et al.* (U.S. Patent No. 5,232,848) and Queen, *et al.* (U.S. Patent No. 5,530,101) or Waldmann, *et al.* (U.S. Patent No. 5,846,534). The Examiner acknowledges the Applicant's arguments that Waldmann, *et al.* is limited to treating autoimmune diseases rather than rheumatoid arthritis. The Examiner then alleges that the Applicants ignore the teachings of Queen, *et al.* that rheumatoid arthritis was a known target of recombinant therapeutic antibodies at the time of the invention was made. The Examiner then alleges the Applicants cannot show non-obviousness by merely asserting that the references do not provide the sufficient elements of obviousness or by attacking the references individually. Citing *In re Rousselet*, 146 USPQ 183, 186 (CCPA 1965), the Examiner notes that the test for obviousness is not an express suggestion of the claimed invention in any or all references but rather that the references taken together would suggest to those familiar with them. The Examiner also considers the "common sense" test of *KSR v. Teleflex, Inc.*, 127 S.Ct. 1727, 1731 (2007), "the common sense test of those skilled in the art demonstrates why some combinations would have been obvious." The Examiner then assumes that because the prior art goal was to treat certain disease, including arthritis with a therapeutic antibody, with repeat administration, particularly rheumatoid arthritis it would have been routine for the skilled artisan to design such therapeutic regimens of rheumatoid arthritis with therapeutic antibodies. Finally, the Examiner alleges that based on the teaching of Adair, *et al.* a person of ordinary skill in the art would have been motivated to produce CHO glycosylated therapeutic antibodies.

The Applicants respectfully traverse this rejection. In relying on *KSR*, the Examiner ignores the Courts assertion that "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does," because claimed inventions almost always rely on combinations of elements that are already known. *Id.* at 1741. Furthermore, the Courts warn of "the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." *Id.* at 1742.

As discussed in the response made May 2007, the Examiner uses hindsight reconstruction by taking individual elements from each reference and assumes that a skilled artisan at the time the invention was made would have known to use a multiple dose treatment regimen with glycosylated IgG for autoimmune disease. The Examiner goes even further by cobbling together diseases disclosed in the various references to allege that treatment of rheumatoid arthritis would be obvious based on the disclosure of Waldmann, *et al.* and Queen, *et al.* The Applicants respectfully submit that the Examiner has chosen individual words from each reference to arrive at the current invention which relates to the treatment of a particular disease, even though in some instances the words are taken out of context.

Additionally, the Examiner incorrectly applies the "common sense" test of *KSR* to Waldmann, *et al.* and Queen, *et al.* to arrive at the present invention. The Applicants refer to Parekh, *et al.* *Nature* 316:452-457 (1985), submitted previously in a response of May 2007. Parekh, *et al.* demonstrate that in patient populations of patients having arthritide diseases, such as rheumatoid arthritis or osteoarthritis, IgG molecules of these patients contain truncated glycan chains compared with normal individuals. Parekh, *et al.* suggest that these two diseases may be "glycosylation diseases." Parekh, *et al.* further suggest that oligosaccharides terminating in N-acetylglucosamine (i.e., having a truncated glycan adduct) could create new protein oligosaccharides that may be immunogenic, increase the population of certain IgG subpopulations raising immunogenicity to these IgG, or could effectively make the IgG sticky creating an autoaggregation rather than an immune response. Therefore, Parekh, *et al.* suggest that aberrantly glycosylated IgG might be immunogenic in patients already having arthritic disease. The Applicants, therefore, submit that multiple administration of a glycosylated IgG for the treatment of a disease such as arthritis, at the time the invention was made, might be expected to increase immunogenicity to the IgG. Therefore, "common sense" would provide no motivation to a skilled artisan to treat a disease such as arthritis with a glycosylated IgG and particularly with a multiple dose treatment regimen.

Furthermore, any multiple dose therapy suggested by Queen, *et al.* is based on the assumption that immunogenicity to a humanized antibody is reduced because it contains fewer foreign sequences in its framework region compared with rodent framework. Queen, *et al.* make no reference to glycosylation, nor do they provide anything more than a mere recitation of rheumatoid arthritis as a

possible disease for treatment. Thus, the Examiner appears to pick individual elements from the cited references to arrive at the present invention even though those elements have no contextual relationship or even a suggestion that one might connect to the other. There is no "common sense" reason why the skilled artisan would combine them. Given the discussion of Parehk. *et al.* above and made previously, it is unlikely that the skilled artisan at the time the invention was made would have considered using glycosylated IgG for the treatment of arthritis in a multiple dose regimen. In other words, it would have gone against the "common sense" of the skilled artisan.

Applicants respectfully submit that, in view of the forgoing remarks, the Applicants have overcome the rejection of claims 1, 7-10 and 12 under 35 U.S.C. § 103. Accordingly, the Applicants respectfully request withdrawal of these rejections.

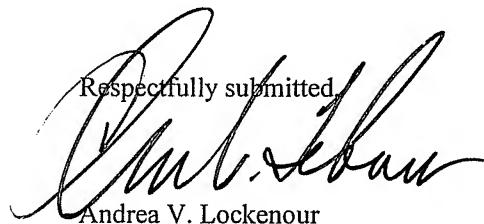
Obvious-type double-patenting

The Applicants thank the Examiner for removing the previous provisional rejection under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11, 12, 17, 21-28, 39 and 40 of co-pending application USSN 10/145,992 in view of Mather, *et al.* (U.S. Pat. No. 5,122,469), Zettlemeyer, *et al.* (Biotechnology 5:720-725(1987)), Handa-Corriigan, *et al.* (Enzyme Microb. Technol. 11:230-235 (1989)) and Schneider (J. Immunol. Methods 116:65-77 (1989)).

The Examiner alleges that withdrawn claims 4-6 of the instant application are no longer consistent with independent claim 1. He further notes that withdrawn claims 4-6 are dependent on canceled claim 2 and should be amended or canceled accordingly. Claims 4-6 are cancelled herein, therefore, rendering this rejection moot.

Conclusion

The Applicants reserve the right to prosecute, in one or more patent applications, the claims to non-elected inventions, the cancelled claims, the claims as originally filed, and any other claims supported by the specification. The Applicants thank the Examiner for the Office Action and believe this response to be a full and complete response to such Office Action. Accordingly, favorable reconsideration and allowance of the pending claims is earnestly solicited. If it would expedite the prosecution of this application, the Examiner is invited to confer with the Applicants' undersigned attorney.

Respectfully submitted,

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